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Wisconsin Transportation Research

REPORT TO STAKEHOLDERS

Foundations for the Future



Wisconsin Department of Transportation



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Investing in Transportation Research

Few investments have the payoff potential of well-planned research. Congress put transportation research front and center on state and national agendas with the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and again in 1998 with the Transportation Equity Act for the 21st Century (TEA-21).

WisDOT has worked closely with the U.S. Department of Transportation (USDOT), the Federal Highway Administration (FHWA) and other federal transportation agencies to carry out an aggressive research program that is integrated with national efforts.

This *Report to Stakeholders* reviews some of our transportation research efforts in Wisconsin during the past four years. A few of these studies are already complete and have made a significant impact on the way we do business. Many of the projects will be finished in the coming months. For all of us interested in Wisconsin's transportation future, the report provides an overview of these diverse and laudable investigations.

Here at WisDOT, we have always been research minded. We work hard throughout the organization to develop and apply new technologies, practices and materials to improve our transportation infrastructure and the services we deliver to the public.

We have formed partnerships, such as the Wisconsin Highway Research Program (WHRP), with FHWA, our great research universities, and Wisconsin's progressive contractors and consultants. Through this cooperative program we hope to create the innovations needed to meet our customers' expectations in the coming years.

We have forged regional and national partnerships with other states and universities through pooled fund research projects and with creative new institutions, such as the Midwest Regional University Transportation Center (MRUTC). In addition to finding better ways to manage our multi-billion-dollar transportation infrastructure assets, the MRUTC will be launching a clearinghouse for the Midwest region focused on the important issue of reducing injuries and property damage from deer-vehicle crashes.

The structure and goals of WHRP, MRUTC and WisDOT's internal research are outlined in these pages. These partnerships are a work in progress. We will build on their successes and take on even more difficult tasks in coming months and years.

In June of 2000, I participated in a national workshop for state DOT leaders on "Managing Change in State Departments of Transportation." At the end of two intensive days of discussion, we formed a research agenda based on common needs in three key areas: strategic planning, workforce development and program delivery. These are all future oriented research needs, many of which will become projects of the National Cooperative Highway Research Program (NCHRP).

Through national and regional partnerships and through our own growing efforts here in Wisconsin, we are laying "foundations for the future." We are learning what we need to know to make WisDOT increasingly responsive to our customers. We are making Wisconsin's great transportation system even better.

And we look forward to our investments in research reaping invaluable dividends in the form of enhanced transportation services, products and public safety.

A Message from WisDOT Secretary Terry Mulcahy



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Solutions through Innovation

WisDOT's vision is "Dedicated people creating transportation solutions through innovation and exceptional service." Transportation research, which systematically explores alternative solutions, is an important part of this vision. The entire process of research, development and technology transfer (RD&T), embodied in the Research Coordination Section logo, is a powerful tool for putting innovation into practice, thereby helping to raise the level of service provided by the department.

Our section's mission is to assure that the RD&T process effectively serves our customers—including WisDOT staff, our partners in industry and academia, and taxpayers—while complying with Federal Highway Administration (FHWA) regulations for state transportation research programs. Eighty percent of our funding is from federal State Planning and Research (SPR) dollars, with WisDOT contributing twenty percent.

Our *Research, Development and Technology Transfer Management Plan* and this *Report to Stakeholders* are two ways by which we communicate the process and products of WisDOT research. In this Report we summarize projects undertaken during the past four transition years—federal fiscal years 1998–2001. Year 2001 projects, just under way, are shown separately for future year-to-year comparisons. We also include pooled fund projects in this Report. By joining with FHWA and other states in regional and national pooled fund efforts, we are able to solve common problems at a fraction of the cost to carry out the research alone.

I invite you to review WisDOT's research efforts, made possible by the hard work of many dedicated individuals within the department, among our partners in industry and academia, and at FHWA. We present these research efforts on several tables and charts to give perspective both on funding sources and allocations and on the scope of research.

We also present brief summaries of the projects, some of which have been completed and are under consideration for implementation. I invite you to sample these to gain an appreciation for the wide variety of research under way and for the innovation we can all expect in the coming months and years.

As a stakeholder in Wisconsin transportation research, you have a particular interest in the future. We view these past four years of research efforts as *foundations for the future*. Please share your thoughts and recommendations as we continue to improve our efforts.

IMPLEMENTING RESEARCH RESULTS

WisDOT's Research Coordination Section is part of the department's Division of Transportation Infrastructure Development, led by DTID Administrator Mike Cass. One of his goals for the research program in 2001 and beyond is to assure that new knowledge, technologies and practices resulting from research are quickly applied to transportation activities. This is when the payoff from research is collected.

The research implementation process begins with formulation of the research project itself: what don't we know and how will we change our procedures if we learn the answers? When the research is complete, WisDOT managers will champion applicable new approaches into practice—on a timetable. Finally, the new practice or technology will be evaluated, in both the short term and long term, to measure the value of the change.